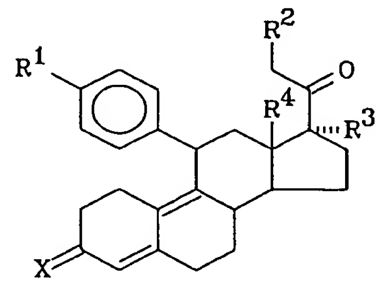
21-SUBSTITUTED PROGESTERONE DERIVATIVES AS NEW ANTIPROGESTATIONAL AGENTS

ABSTRACT OF THE DISCLOSURE

A compound having the general formula:



I

in which: R^1 is a member selected from the group consisting of $—OCH_3$, $—SCH_3$, $—N(CH_3)_2$, $—NHCH_3$, —CHO, $—COCH_3$ and $—CHOHCH_3$; R^2 is a member selected from the group consisting of halogen, alkyl, acyl, hydroxy, alkoxy, acyloxy, alkyl carbonate, cypionyloxy, S-alkyl and S-acyl; R^3 is a member selected from the group consisting of alkyl, hydroxy, alkoxy and acyloxy; R^4 is a member selected from the group consisting of hydrogen and alkyl; and X is a member selected from the group consisting of $=O$ and $=N-OR^5$, wherein R^5 is a member selected from the group consisting of hydrogen and alkyl.

In addition to providing the compounds of Formula I, the present invention provides methods wherein the compounds of Formula I are advantageously used, *inter alia*, to antagonize endogenous progesterone; to induce menses; to treat endometriosis; to treat dysmenorrhea; to treat endocrine hormone-dependent tumors; to treat uterine fibroids; to inhibit uterine endometrial proliferation; to induce labor; and for contraception.